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Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- (Currently Amended) An antifibrillogenic agent for inhibiting amyloidosis and/or for cytoprotection consisting of [comprising a]-peptide [consisting of] ANX (SEQ. ID. NO. 28), wherein X is any amino acid except cysteine, or [an isomer thereof], a retro or a retro-inverso isomer thereof, or a salt thereof.
- 2. (Previously Amended) The antifibrillogenic agent of claim 1, wherein X is I or F.
- 3. (Currently Amended) The antifibrillogenic agent of claim 1, wherein the [agent comprises a] peptide <u>is [consisting of]</u> ANF (SEQ. ID. NO. 24), or [an isomer thereof,] a retro or a retro-inverso isomer thereof, or a salt thereof.
- 4. (Previously Canceled)
- 5. (Previously Canceled)
- 6. (Previously Canceled)
- 7. (Previously Canceled)
- 8. (Previously Canceled)
- 9. (Currently Amended) The antifibrillogenic agent of claim 1, wherein said peptide is ANX (SEQ. ID. NO. 28) wherein X is any amino acid except cysteine, or a salt thereof.
- 10. (Previously Amended) The antifibrillogenic agent of claim 9, wherein X is I or F.
- 11. (Currently Amended) The antifibrillogenic agent of claim 10, wherein the peptide is ANF (SEQ. ID. NO. 24), or a salt thereof.
- 12. (Canceled)
- 13. (Previously presented) The antifibrillogenic agent of claim 1, wherein said amyloidosis is IAPP-related.
- 14. (Previously Amended) The antifibrillogenic agent of claim 1, wherein said amyloidosis is type 1 or type 2 diabetes.

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- 15. (Previously Amended) A composition for inhibiting amyloidosis and/or for cytoprotection, comprising a therapeutically-effective amount of the antifibrillogenic agent of claim 1 in association with a pharmaceutically-acceptable carrier.
- 16. (Previously Amended) A composition for inhibiting amyloidosis and/or for cytoprotection, comprising a therapeutically-effective amount of the antifibrillogenic agent of claim 9 in association with a pharmaceutically-acceptable carrier.
- 17. (Previously Canceled)
- 18. (Previously Canceled)
- 19. (Previously Canceled)
- 20. (Previously Canceled)
- 21. (Previously Canceled)
- 22. (Previously Canceled)
- 23. (Previously Canceled)
- 24. (Previously Canceled)
- 25. (Previously Canceled)
- 26. (Previously Canceled)
- 27. (Previously Canceled)
- 28. (Previously Canceled)
- 29. (Previously Canceled)
- 30. (Previously Canceled)
- 31. (Previously Canceled)
- 32. (Previously Withdrawn) A method for the treatment of amyloidosis disorders in a patient, comprising administering to said patient a therapeutically-effective amount of the antifibrillogenic agent of claim!
- (Previously Withdrawn) The method of claim 32, wherein said amyloidosis disorder is IAPPrelated.
- 34. (Previously Withdrawn)The method of claim 33, wherein said amyloidosis disorder is type 1 or type 2 diabetes.

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- 35. (Previously Withdrawn) The method of claim 34, wherein said antifibrillogenic agent is administered in conjunction with another agent selected from the group consisting of insulin, sulfonylurea, and glucose sensitizers.
- 36. (Previously Canceled)
- 37. (Previously Canceled)
- 38. (Previously Canceled)
- 39. (Previously Canceled)
- 40. (Previously Withdrawn) A process for the preparation of cells suitable for transplantation into a mammal, which cells are capable of forming amyloid deposits, said process comprising contacting cells *in vitro* with the antifibrillogenic agent of claim 1 for inhibiting amyloid deposit formation.
- 41. (Previously Withdrawn) The process of claim 40, wherein said antifibrillogenic agent causes breakdown of amyloid deposits, the deposits having been formed by said cells prior to said contact.
- 42. (Previously Withdrawn) The process of claim 40, wherein said cells are cultured in the presence of said antifibrillogenic agent.
- 43. (Previously Withdrawn) The process of claim 40, wherein said amyloid deposits comprise IAPP amyloid.
- 44. (Previously Withdrawn) The process of claim 40, wherein said amyloid deposits are associated with type 1 or type 2 diabetes.
- 45. (Previously Withdrawn) The process of claim 40, wherein said cells, prior to treatment, form amyloid deposits.
- 46. (Previously Withdrawn) Cells suitable for transplantation into a mammal, which have been prepared by the process of claim 40.
- 47. (Previously Withdrawn) A method for treating a type 1 or type 2 diabetes patient after transplantation, said method comprising the step of administering in vivo to said patient the antifibrillogenic agent of claim 1 for inhibiting, preventing, and/or reducing amyloid deposit formation and amyloidosis.
- 48. (Previously Withdrawn) The method of claim 47, wherein said amyloid deposit formation and/or amyloidosis is IAPP-related.

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- 49. (Previously Withdrawn) The method of claim 47, wherein said composition is administered in conjunction with another agent selected from the group consisting of insulin, sulfonylurea, and glucose sensitizers.
- 50. (Previously Withdrawn) A method for inhibiting amyloidosis and/or for cytoprotection, comprising administering to a subject a therapeutically-effective amount of the antifibrillogenic agent of claims 1, wherein said antifibrillogenic agent prevents or reduces amyloid deposition.
- 51. (Previously Canceled)
- 52. (Previously Canceled)
- 53. (Previously Canceled)
- 54. (Previously Canceled)
- 55. (Previously Canceled)
- 56. (Previously Canceled)
- 57. (Previously Withdrawn) A method for identifying an optimized peptide for inhibition of amyloidosis, comprising the steps of:
 - (a) choosing an original peptide selected from the group consisting of ANF (SEQ. ID. NO.
 - 24), GNF (SEQ. ID. NO. 25), AGF (SEQ. ID. NO. 26), and NFL (SEQ. ID. NO. 33),
 - (b) systematically substituting at each residue a different amino acid,
 - (c) testing the ability of each derivative to inhibit amyloid fibril formation, and
 - (d) comparing the inhibition of each derivative with the inhibition of the original peptide, wherein an increase in inhibition of the derivative as compared with the original peptide indicates an optimized peptide.
- 58. (Previously Withdrawn) The method of claim 57, wherein the different amino acid is chosen from the group consisting of Gly, Ala, Val, Leu, Ile, Ser, Thr, Met, Asp, Asn, Glu, Gln, Arg, Lys, His, Phe, Tyr, Trp, and Pro.
- 59. (Previously Withdrawn) The method of claim 57, wherein the original peptide is ANF (SEQ. ID. NO. 24).
- 60. (Previously Withdrawn) The method of claim 57, wherein the testing for inhibition comprises at least one *in vitro* assay system selected from the group consisting of CD, EM, and cell toxicity.

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- 61. (Previously Withdrawn) The optimized peptide identified using the method of claim 57.
- 62. (Currently Amended) A composition for inhibiting amyloidosis and/or for cytoprotection, comprising a therapeutically-effective amount of the antifibrillogenic agent of claim 10 or[ro] a salt thereof in association with a pharmaceutically-acceptable carrier.
- 63. (Previously Presented) A composition for inhibiting amyloidosis and/or for cytoprotection, comprising a therapeutically-effective amount of the antifibrillogenic agent of claim 11 or a salt thereof in association with a pharmaceutically-acceptable carrier.
- 64. (New) A composition for inhibiting amyloidosis and/or for cytoprotection, comprising a therapeutically-effective amount of the antifibrillogenic agent of claim 3 in association with a pharmaceutically-acceptable carrier.